



Recd.
Rec. Mgmt.
September 27, 2001

Department of Energy
Ohio Field Office
West Valley Demonstration Project
10282 Rock Springs Road
West Valley, NY 14171-9799

DW:2001:0661

September 26, 2001

Mr. James L. Little, President
West Valley Nuclear Services Company
10282 Rock Springs Road
West Valley, NY 14171-9799

ATTENTION: J. R. Gerber, Environmental, Regulatory Affairs, and Quality Assurance
Manager, AOC-05

SUBJECT: Environmental Checklist OH-WVDP-2001-01, Construction of Scrap Removal
Room Airlock and Conveyance System

REFERENCE: Letter WD:2001:0557 (79317), C. B. Banzer to A. C. Williams, "Environmental
Checklist OH-WVDP-2001-01, 'Construction of Scrap Removal Room Airlock
and Conveyance System,'" dated September 5, 2001

Dear Sir:

The Ohio Field Office West Valley Demonstration Project (OH/WVDP) National Environmental
Policy Act (NEPA) Compliance Officer has reviewed the subject environmental checklist and
determined that the action described therein is categorically excluded from the requirement to
prepare additional NEPA documentation in the form of either an environmental assessment or
environmental impact statement.

Enclosed is a signed Environmental Checklist/Action Description Memorandum Form and
attachment to the Environmental Checklist.

Sincerely,

Daniel W. Sullivan
NEPA Compliance Officer

Enclosure: Subject Checklist

cc: J. L. Drake, OH/WVDP, WV-DOE, w/o enc.
M. N. Maloney, OH/WVDP, WV-DOE, w/enc.
H. R. Moore, OH/WVDP, WV-DOE, w/enc.

DWS:0124 - 79533 - 451.7

DWS/brb



Department of Energy (DOE)
Ohio Field Office, West Valley Demonstration Project (OH/WVDP)

ENVIRONMENTAL CHECKLIST

Project/Activity Title: Scrap Removal Room Enclosure	NEPA ID Number: OH-WVDP-2001-01 Rev. #: 0 Date:
Contractor Project Manager: E. Ciancone	Phone Number: 942-2428
Contractor NEPA Coordinator: C. Banzer	Phone Number: 942-4109
OH/WVDP NEPA Document Manager: D. Sullivan	Phone Number: 942-4016

A. BRIEF PROJECT/ACTIVITY DESCRIPTION: Attach a detailed description or statement of work.

B. SOURCES OF IMPACT: Would the action involve, generate, or result in changes to any of the following?

	YES	NO		YES	NO
1. Air Emissions	X		12. Water Use/Diversion	X	
2. Liquid Effluents	X		13. Water Treatment		X
3. Solid Waste	X		14. Water Course Modification		X
4. Radioactive Waste/Soil	X		15. Radiation/Toxic Chemical Exposures	X	
5. Hazardous Waste		X	16. Pesticide/Herbicide Use		X
6. Mixed Waste		X	17. High Energy Source/Explosives		X
7. Chemical Storage/Use		X	18. Transportation	X	
8. Petroleum Storage/Use		X	19. Noise Level	X	
9. Asbestos		X	20. Workforce Adjustment		X
10. Utilities	X		21. Other		X
11. Clearing or Excavation	X				

In an attachment, qualify and explain each question that you have specifically answered "YES."

C. CATEGORY EVALUATION CRITERIA: Would the proposed action:

	YES	NO
1. Take place in an area of previous or ongoing disturbance?	X	
2. Create hazardous, radioactive or mixed waste for which no disposal is available?		X
3. Impact a RCRA-regulated unit or facility?		X
4. Force a low income or ethnic minority population to shoulder a disproportionate share of the negative environmental impacts of pollution or environmental hazards because of a lack of political or economic strength?		X
5. Involve air emissions and be located in an air pollutant non-attainment or maintenance area for any criteria pollutants?		X
6. Threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, including DOE and/or Executive Orders? (i.e., require any federal, state or local permits, approvals, etc.)?		X
7. Disturb hazardous substances, pollutants or contaminants that pre-exist in the environment such that there would be uncontrolled or unpermitted releases?		X
8. Require siting, construction, or major expansion of a waste storage, disposal, recovery, or treatment facilities, but may include such categorically-excluded facilities?		X
9. Adversely affect environmentally sensitive resources including, but not limited to: structures of archeological, historic or architectural significance; threatened or endangered species or their habitat; floodplains or wetlands; wildlife refuges, agricultural lands or vital water resources (e.g., sole-source aquifers)?		X
10. Involve extraordinary circumstances? As specified at 40 CFR § 1021.410(b), extraordinary circumstances are unique situations presented by specific proposed actions, such as scientific controversy about the environmental effects of the action, uncertain effects or effects involving unique or unknown risks, or unresolved conflicts concerning alternate uses of available resources within the meaning of Section 102(2)(B) of NEPA (42 U.S.C. 4332(2)).		X
11. Be "connected" to other actions with potentially significant impacts, related to other proposed actions with cumulatively significant impacts, and precluded by 40 CFR § 1506.1 or 10 CFR § 1021.211?		X

In an attachment, qualify and explain each question that you have specifically answered "YES."

U.S. Department of Energy (DOE)
Ohio Field Office, West Valley Demonstration Project (OH/WVDP)

ENVIRONMENTAL CHECKLIST

D. RECOMMENDATION AND DETERMINATION

DOE OH/WVDP Director's Recommendation: I find and recommend that this proposed action meets the criteria specified in 10 CFR § 1021, Subpart D, and/or DOE Policy and Guidance for the following:

- ☒ Categorical Exclusions (Appendix B, Class of Action 1.15)
- ☐ Actions Within the Scope of Existing NEPA Documentation
(NEPA Document ID Number _____)
- ☐ On-going Operations (Standard Operating Procedure OH-6.1.01, Rev. 1, Section 5.2)

Signature: *Glenn Williams* Date 09/27/01
Director, Ohio Field Office,
West Valley Demonstration Project (OH/WVDP),
Department of Energy

DOE OH/WVDP NEPA Compliance Officer's Determination: Based on my review of the attached information concerning this proposed action, as the OH/WVDP NEPA Compliance Officer (DOE Order 451.1A, Section 5.d.), I have determined that the proposed action fits within the specified class of actions, that the other regulatory requirements identified in Section C are met, and that this proposed action proceed without further NEPA review.

Signature: *Daniel W. Sullivan* Date 9/17/2001
OH/WVDP NEPA Compliance Officer,
West Valley Demonstration Project

OR

- ☐ Environmental Assessments (Appendix C, Class of Action _____; or Action not listed in Subpart D)
- ☐ Environmental Impact Statements (Appendix D, Class of Action _____)
- ☐ Interim Actions (40 CFR § 1506.1 and 10 CFR § 1021.211)
- ☐ Integrated Documentation for CERCLA/RCRA Actions
- ☐ Variances (Emergency Action, 40 CFR § 1506.11 and 10 CFR § 1021.34)

DOE-OH NEPA Compliance Officer's Concurrence: I concur with the recommendation that this proposed action fits within the specified class of actions.

Signature: _____ Date _____
NEPA Compliance Officer,
Ohio Field Office,
Department of Energy

DOE-OH Manager's Determination: Based on my review of the attached information concerning this proposed action, as the Head of the Ohio Field Office (DOE Order 451.1A, Section 5.a.), I have determined that the level of documentation recommended for the proposed action is appropriate.

Signature: _____ Date _____
Manager, Ohio Field Office,
Department of Energy

**Attachment to Environmental Checklist OH-WVDP-2001-01
Construction of Scrap Removal Room Airlock and Conveyance System**

SECTION A: PROJECT DESCRIPTION

1.0 Background

The West Valley Demonstration Project (WVDP) Act [Public Law 96-368] (the "Act") authorized the United States Department of Energy (DOE) to carry out a high-level liquid nuclear waste management demonstration project at the Western New York Nuclear Service Center (WNYNSC) in West Valley, New York. The Act, among other things, requires DOE to develop a waste form to solidify high-level waste (HLW) that is suitable for transportation and disposal. It also requires the DOE to decontaminate and decommission (D & D) tanks and other facilities at the WNYNSC in which HLW was stored, as well as all WVDP facilities, material, and hardware used in supporting and carrying out the Act.

Among the facilities used by DOE during solidification operations is the Main Plant Building (i.e., the former Nuclear Fuel Services (NFS) Processing Building). The Main Plant Building was designed to recover uranium and plutonium from spent nuclear fuel from 1966 to 1971 during the NFS reprocessing operations. The physical and chemical reprocessing operations were conducted in specially designed cells, rooms, aisles, and glove boxes. Some decontamination work was done in the Main Plant Building during the 1970s as part of planned maintenance, modification, or expansion. From 1982 to 1987, the WVDP performed decontamination operations in several cells and rooms to prepare them for use in the HLW interim storage or as part of the Liquid Waste Treatment System (LWTS).

The NEPA analysis for the early decontamination activities conducted in the Main Plant Building was documented by the *Final Environmental Impact Statement for the Long Term-Management of Liquid High-Level Radioactive Wastes Stored at the Western New York Nuclear Service Center, West Valley* (DOE/EIS-0081, i.e., "the '82 EIS"). The '82 EIS also provided that "eventually all the facilities used for the solidification project would be decontaminated and dismantled—including the main building used in the solidification process..." (DOE/EIS-0081, section 2.1, pg 2-6). The '82 EIS further assumed a schedule for purposes of analysis of alternatives, that most of the decontamination effort would occur in two periods: a) the initial period to decontaminate facilities used for the solidification and temporary storage operations; and b) the final decontamination and decommissioning of the facilities used. The '82 EIS also recognized that although only a few cells used in the fuel reprocessing would be actually used, it would "be advantageous to remove the equipment from the other cells and perform some decontamination since this would advance the goal of final plant decommissioning" ('82 EIS, Section B.3.1, pg. B-53). The final EIS assumed that the cleanup would include "...decontamination and removal of all existing reprocessing equipment piping, tanks and any other obstructions and/or radioactive material within the cells.

Subsequently, in 1993 and 1998, DOE prepared a Supplement Analysis of modifications to the West Valley Demonstration Project since the 1982 Final EIS, which indicated that initial decontamination of the entire plant would not be completed prior to HLW solidification. Based on the Supplement Analyses, DOE determined that a Supplemental EIS was not required. As such, in 1999, decontamination of the Head End Cells (HEC) was approved by DOE and initiated to eliminate the risk of criticality, reduce the mobility of contamination, minimize surveillance and maintenance cost, and maximize the use of existing waste treatment facilities. The Head End Cells refer to the Process Mechanical Cell (PMC), Ancillary Support Cells and the General Purpose Cell (GPC).

The WVDP has performed HEC infrastructure upgrades necessary to the PMC and the GPC, constructed new enclosures and replaced inoperable cranes and remote manipulators. Cell contents cleanup in the PMC and the GPC have been initiated. This effort will entail collecting, sorting, treating and/or packaging materials and wastes, as well as decontaminating bulk materials from the PMC and the GPC.

2.0 Purpose and Need

The purpose of a Scrap Removal Room (SRR) airlock enclosure and conveyance system is to facilitate packaging and removal of HEC waste. Due to the expected high radiation of the contents to be removed from the HECs and to minimize any potential contamination from packaged waste as it is removed and transported to storage facilities, an airlock and conveyance system is necessary for worker ALARA safety and environmental protection.

3.0 Type and Scope of Activity

The proposed action evaluated in this checklist is to construct a SRR airlock and conveyance system to facilitate packaging and removal of the HEC waste. It is conceivable that the airlock and conveyance system could also be used to remove future wastes from the Vitrification Facility. The airlock will be connected to the north end of the SRR and will be a concrete block walled, metal roofed enclosure. It will be built to control airflow and withstand 0.1" negative pressure and be weather tight. Construction of the airlock and conveyance system would entail:

- excavating the ground adjacent to the east wall of the Vitrification Facility and north of the SRR Shield Door;
- installing footing, a foundation wall, and a reinforced concrete pad (approximately 35' x16') (Note: no underdrain system is planned for this structure).
- constructing a steel and concrete block building with a metal roof enclosure;
- extending existing utilities to the enclosure;
- installing a roller (conveyance) system;
- installing fall protection; and
- installing an HVAC system to maintain negative air pressure when the SRR Shield Door is closed.

The enclosure will be dimensioned as shown in Exhibit A, General Arrangement Sketch #SK-EMC-070501, 1-4). The enclosure design includes a 10' x 14' overhead door, two (2) 3' man doors, troffer lights, and a movable vinyl barrier wall inside the SRR (adjacent to the shield door). Existing site roads and paved lot/areas around the Vitrification facility would accommodate any heavy construction equipment (e.g., concrete trucks).

4.0 Schedule/Timing

Procurement Contracts are tentatively scheduled to be placed by the end of September 2001 with construction to be completed by March 2002.

SECTION B: SOURCES OF IMPACT

1. Air Emissions: The airlock is to be built to control air flow and withstand 0.1" negative air pressure when the SRR Shield Door is closed. Any installation of HVAC equipment will meet the requirements of 40 CFR 82, "Protection of Stratospheric Ozone," which provides that no Class 1 refrigerants (i.e., ozone, Freon) can be released. There would also be minor CO and CO₂ air emissions from intermittent construction equipment during the construction period.

2. Liquid Effluents: Water may accumulate in the construction excavation which may require evacuation. Construction wastewater from excavations is identified as an operational source to outfall 001 (i.e., Lagoon 3) on the most recent State Pollutant Discharge Elimination System (SPDES) permit application, filed with New York State Department of Environmental Conservation (NYSDEC) on September 27, 2000 (see also Section C, #6). Any construction wastewater that does accumulate will be collected and characterized in accordance with SOP 300-07, "On-Site Waste Generation, Packaging, and Transportation," Revision 12, dated August 4, 2000 and WM-210, "Waste Stream Characterization" for potential disposition to the Low Level Waste Treatment Facility interceptors.

Air conditioning condensate could result from the HVAC system once the airlock is in use. Condensate discharges are tentatively authorized by NYSDEC pending final issuance of the WVDP's SPDES permit.

3. Solid Waste: Solid wastes expected to be generated as a result of construction activities would include construction debris (metal, wood, plastic wrapping material, paper, concrete, etc.). All solid waste would be surveyed to segregate any potential radioactively contaminated material from clean material. The solid waste would be disposed of in a permitted sanitary landfill by a licensed solid waste transporter, in accordance with Standard Operating Procedure (SOP) 9-12, "Solid Waste Management and Material Reuse and Recycling."

4. Radioactive Waste/Soil: Given the proposed construction location and historical knowledge of the area, approximately 440 cubic feet of potential radioactive soil and debris could be generated during excavation for footers and a concrete slab for the structure (see Item 11, below). An additional 80 cubic feet of soil and debris would be excavated for the trench that will redirect two storm water down spouts (see Items 11 and 12). Solid radioactive waste would be handled in accordance with SOP-009, "Solid Radioactive Waste Handling."

10. Utilities: No utility modifications are anticipated. All utilities would be extended from existing site services.

11. Clearing or Excavation: The installation of the footers and concrete slab for the airlock would require excavation of an area approximately 35' x 16' x 4'. Given the location and historical knowledge of the area, it is expected that approximately 440 cubic feet of potentially radioactive soil and/or debris would be disturbed (see Item 4, above). Also, a trench would be excavated, 11 feet east of the existing north and most down spout in order to redirect the two (2) storm water down spouts which will be removed (see Item 12). The trench excavation is expected to be 20 ft. by 2 ft. which will result in approximately 80 cubic feet of potentially contaminated soil and debris (see Item 3). A drainage pipe will be installed in the trench and the trench backfilled with gravel.

All contaminated soil encountered during excavation would be boxed and placed into lag storage pending disposal. Any clean soil (uncontaminated) would be re-located to the south hardstand and stabilized with a vegetative cover to prevent erosion and discharge of sediment into State waters.

No material will be mined from areas within the retained premises for use on this project.

12. Water Use/Water Diversion: Two (2) down spouts will be relocated from the vitrification facility to an existing catch basin located in the area (see Sketch #SK-EMC-070501). Pre-existing drainage basins will be maintained. As such, it is expected that this plumbing change will not affect existing storm water rates or pollutant concentrations.

15. Radiation Exposures: A worker's maximum radiation exposure limit at the WVDP is 100 millirem (mrem) per day and 500 mrem/year. The estimated whole body dose rate in the area during construction activities of the airlock is 0.2 mrem/hr. During actual waste packaging and transfer operations, the estimated whole body dose rate would be 0.2 mrem/hr.

The estimated total collective effective dose equivalent during construction activities would be 28.8 person-mrem; and 7.2 person-mrem during actual waste handling operations. Worker exposure in the area would be limited by following guidance in the WVDP Radiological Controls Manual (WVDP-010), WVDP Industrial Hygiene and Safety Manual (WVDP-011) and SOP 15-14, "Entry Into and Exit from Contaminated Areas," which are all designed to provide a safe working environment and to keep exposures As Low As Reasonably Achievable (ALARA).

18. Transportation: Waste containers would be transported on-site from the airlock to Lag Storage in accordance with SOP 300-07, "On-Site Waste Generation, Packaging and Transportation."

19. Noise Levels: Increased noise level would result from construction equipment and trucks but would be of short duration and probably would not exceed 85 dB(A) TWA (decibel level measured on the A scale as a time weighted average over an eight hour day).

SECTION C: CATEGORY EVALUATION CRITERIA

1. Take place in an area of previous or ongoing disturbance?

The area where the air lock is proposed to be constructed has been previously disturbed and offers no unique habitats. This proposed action would not affect any threatened or endangered species.

3. Impact a RCRA-regulated unit or facility?

The proposed air lock will not impact an existing RCRA regulated unit or facility. However, once operational, the actual waste management activities within the air lock will be reviewed to determine whether the activities require a solid waste management unit (SWMU) determination and subsequent notification to NYSDEC in accordance with the requirements of the WVDP's RCRA 3008(h) Consent Order.

6. Require any federal, state or local permits, approvals, notifications, etc.

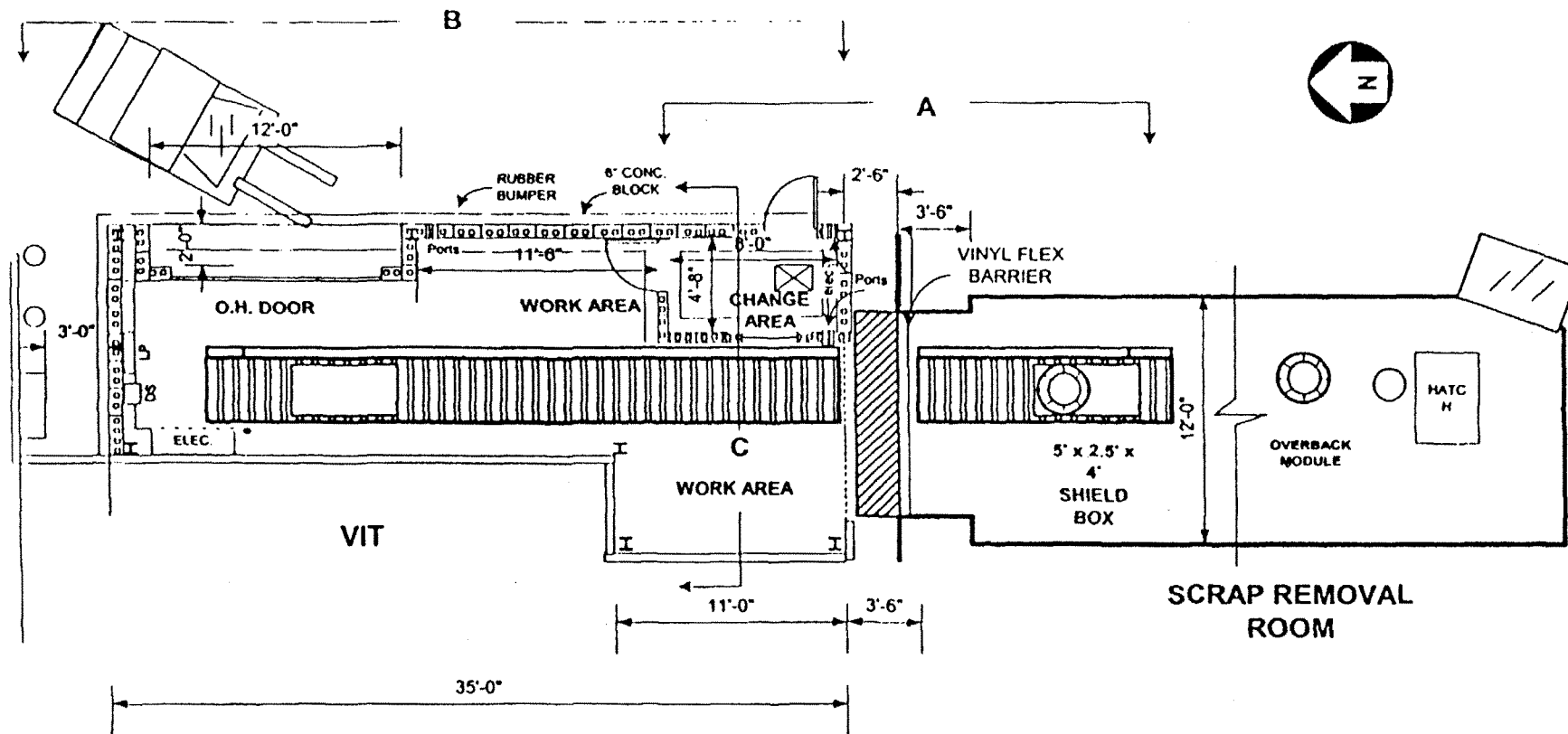
The proposed action will not threaten a violation of any regulatory permits, notifications, etc. Construction wastewater from excavations is identified as an operational source to outfall 001 (i.e., Lagoon 3) on the most recent SPDES permit application, filed with NYSDEC on September 27, 2000. Additionally, any air conditioning condensate discharges are tentatively authorized by NYSDEC, pending final issuance of the WVDP's SPDES permit (see also Section B, #2).

SECTION D. RECOMMENDATION AND APPROVAL

A Categorical Exclusion (CX) is recommended for the proposed action to construct an airlock and conveyance system. Construction of the airlock and conveyance system falls within the class of actions described in Title 10 Code of Federal Regulations (CFR), Part 1021, as amended, Subpart D, Appendix B, B1.15, "Siting/construction/operation of support buildings/support structures. There are no extraordinary circumstances related to the proposed action that would affect the significance of the action, and the action is not "connected" to other actions with potentially or cumulatively significant impacts (40 CFR 1508.25 (a) (1) and (2), respectively).

SUPPORTING DOCUMENTATION

10 CFR 1021	U. S. Department of Energy, "National Environmental Policy Act Implementing Procedures; Final Rule," dated July 9, 1996
40 CFR	U. S. Environmental Protection Agency, "Protection of Stratospheric Ozone," dated August 13, 2000
40 CFR 1500 - 1508	U.S. Council on Environmental Quality, "Council on Environmental Quality Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act," dated July 1, 1996
DOE/EIS-0081	U. S. Department of Energy, "Final Environmental Impact Statement: Long-Term Management of Liquid High-Level Radioactive Wastes Stored at the Western New York Nuclear Services Center, West Valley," dated June 1982
WM-210	West Valley Nuclear Services Company, "Waste Stream Characterization," Revision 2, dated June 19, 2001
SOP 9-2	West Valley Nuclear Services Company, "Solid Radioactive Waste Handling," Revision 6, dated March 2, 1992
SOP 9-12	West Valley Nuclear Services Company, "Solid Waste Management and Material Reuse and Recycling," dated March 2, 2001
SOP 15-14	West Valley Nuclear Services Company, "Entry Into and Exit from Contaminated Areas," Revision 13, dated December 28, 1993
SOP 300-07	West Valley Nuclear Services Company, "On-Site Waste Generation, Packaging and Transportation," Revision 12, dated August 4, 2000
WVDP-010	West Valley Demonstration Project, "Radiological Controls Manual," Revision 11, dated April 14, 1994
WVDP-011	West Valley Demonstration Project, "Industrial Hygiene and Safety Manual," Revision 13, dated September 1, 1994



SRR AIR LOCK

SRR AIRLOCK

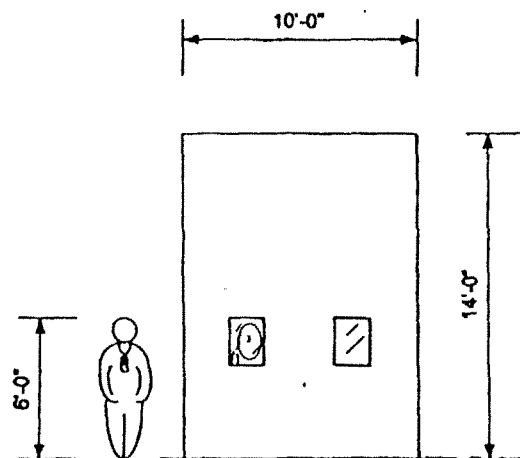
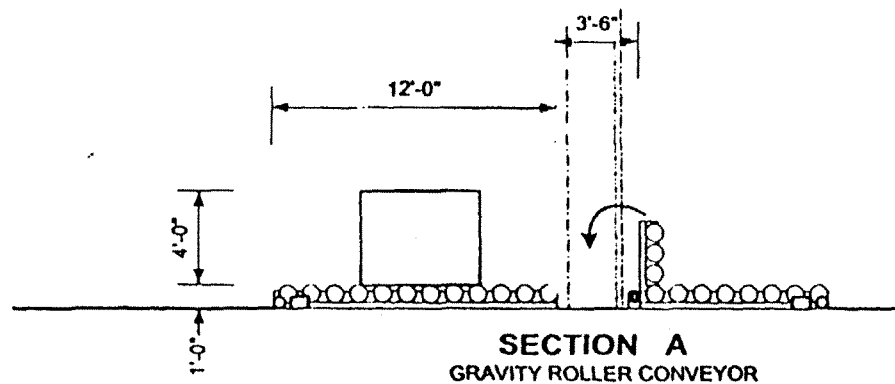
Sketch # SK-EMC-070501 1 of 4

GENERAL LAYOUT

SCALE: 1/8" = 1'-0"

DWG.BY: E.M. CIANCONE

REV.BY:



SRR AIRLOCK

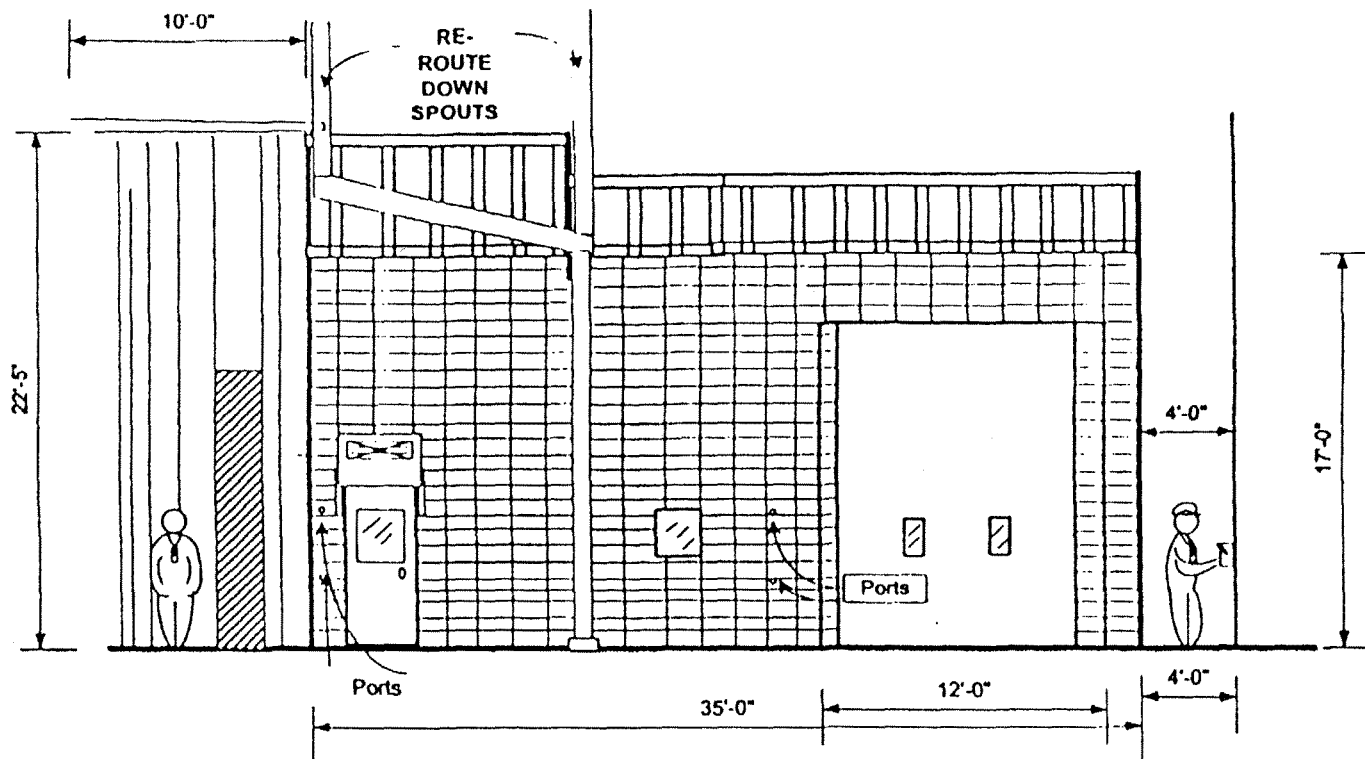
Sketch # SK-EMC-070501 2 of 4

DETAILS

DWG.BY: E.M. CIANCONE

REV.BY:

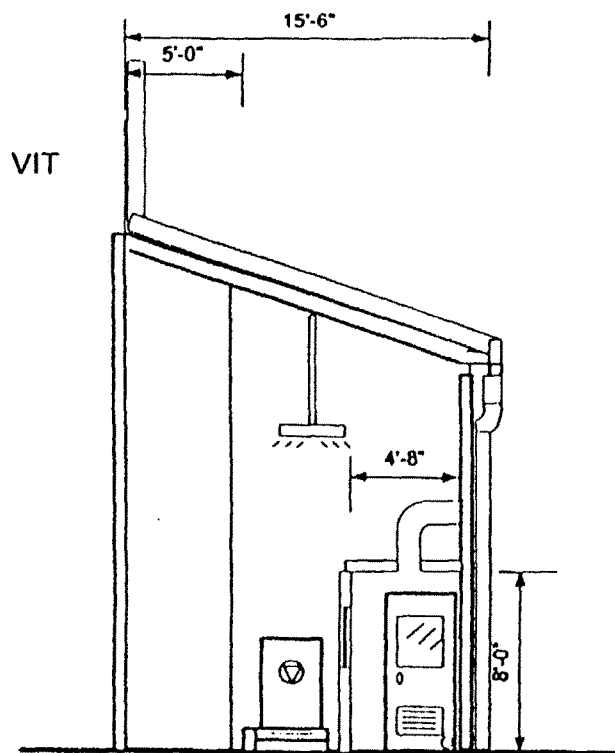
SCALE: 1/8" = 8'-0"



SECTION B

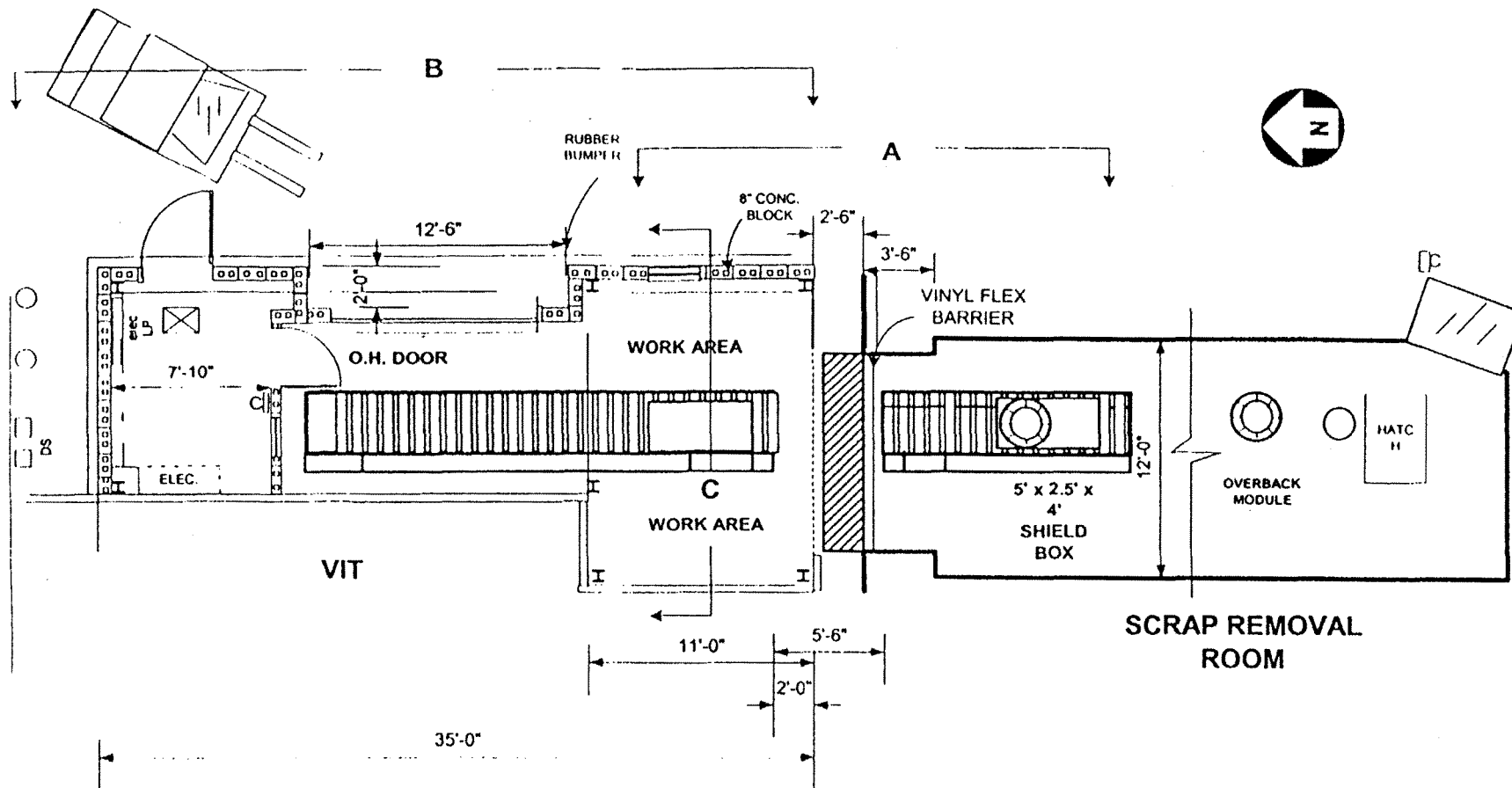
SRR AIRLOCK
Sketch # SK-EMC-070502 3 of 4
EAST ELEVATION
DWG.BY: E.M. CIANCONE
REV.BY:

SCALE: 1/8" = 8'-0"



SECTION C

SRR AIRLOCK
Sketch # SK-EMC-070502 4 of 4
CROSS SECTION
DWG.BY: E.M. CIANCONE
REV.BY:
SCALE: 1/8" = 8'-0"



SRR AIR LOCK

SRR AIRLOCK - Alternate A

Sketch # SK-EMC-070501 1 of 4

GENERAL LAYOUT

SCALE: 1/8" = 1'-0"

DWG.BY: E.M. CIANCONE

REV.BY:

DW:2001:0661

C. B. Banzer	AOC-09
E. M. Ciancone	WV-B1F
J. R. Gerber	AOC-05
K. A. Malone	AOC-09
K. R. Schneider	WV-B1F
D. R. Westcott	AOC-09